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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/580,115

05/19/2006

Yong Hee Kim

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EXAMINER

KO, JASON Y

ART UNIT

PAPER NUMBER

1792

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PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/580,115	<b>Applicant(s)</b> KIM, YONG HEE	
	<b>Examiner</b> JASON Y. KO	<b>Art Unit</b> 1792	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 20 July 2009.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-4,6-12 and 14-20 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-4,6-12 and 14-20 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)         | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)         | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____   | 6) <input type="checkbox"/> Other: _____                          |

## **DETAILED ACTION**

### ***Response to Applicant's Amendments***

1. This Office Action is responsive to the amendment filed on 07/20/09. Claims 1-4, 6-12, and 14-20 are pending. Claims 2, 6, 9, 14, 16, and 19 have been amended. Claims 5 and 13 have been canceled.

### ***Response to Arguments***

2. The double patenting rejection under 35 U.S.C. has been withdrawn in response to Applicant's amendments filed July 20, 2009. However, a nonstatutory obviousness-type double patenting rejection has been made as found below.

3. The claim rejections under 35 U.S.C. 102(b) have been withdrawn in response to Applicant's amendments filed July 20, 2009.

4. Applicant's arguments are considered moot in light of the withdrawal of rejections as described above.

### ***Double Patenting***

5. Claims 1, 6-9, 14-16, and 19 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1, 3-4, 9-10, and 12-13 of copending Application No. 10/580,117. Although the conflicting claims are not identical, they are not patentably distinct from each other because copending application appears to be directed to a subgenus of current application,

because the current application appears to have a ridge additional to the claimed invention of the aforementioned claims of the copending application.

6. This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

### ***Claim Objections***

7. Claim 1 is objected to because of the following informalities:

8. In line 10, the phrase "into the outside of the dish washer" should read "to the outside of the dish washer" for clarity. Appropriate correction is required.

### ***Claim Rejections - 35 USC § 102***

**9. Claims 1-4, 6, 9-12 and 14 are rejected under 35 U.S.C. 102(b) as being anticipated by SCHMID (USPA 2003/0140517).**

10. Regarding Claims 1 and 9, SCHMID teaches a condensing apparatus for condensing vapor inside a dish washer tub, comprising: a blower (fan 16, Fig. 1) for suctioning vapor from inside the tub; an air duct (8) connected to the blower and forming a vapor passage, wherein the vapor passage includes a ridge (heat exchanger surface 6 imparts ridges to the passage, Fig. 1) formed thereon for stopping condensed water; a condensed water discharge port formed at the air duct for discharging moisture condensed from the vapor (where 18 is pointing to, Fig. 1); and a vapor exhaust port (directly above where reference numeral 17 points to) spaced apart from the condensed water discharge port for exhausting vapor from which moisture has been removed to the

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outside of the dishwasher (the dish washer being defined as the compartment of dishwashing machine 1 including the tub, and the condensing device as being "outside the dishwasher").

11. Regarding Claims 2-4 and 10-12, SCHMID teaches a meandering line, or a vapor passage including a straight portion and a curved portion, with the ridge formed at a transitional point (See Fig. 1, curved portion can be at top or bottom of the primarily vertical portion of the vapor passage).

12. Regarding Claims 6 and 14, the predetermined angle has no orientation and also could be zero, and is thus found to read on the vertical passage. It is also noted that near reference numeral 19, an angled portion exists between the two ports. See Fig. 1.

### ***Claim Rejections - 35 USC § 103***

**13. Claim 1-4, 6, 9-12, and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over SCHMID (USPA 2003/0140517) in view of KIM (USPN 5,277,210).**

14. In the event that Claims 1 and 9 are not found to be anticipated by SCHMID, it is rejected as unpatentable over SCHMID in view of KIM because KIM teaches a dishwasher having an air outlet which communicates to an outside of the dishwasher (dry air discharge outlet 106, Fig.3 ) for discharging hot, humid, and pressurized air to the outside (See col. 4 lines 31-34), it would be obvious to modify the condensing device as taught by SCHMID and to have the hot and humid air discharged to an outside to remove moisture, which would also be obvious to try because either the air

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can be recirculated as taught by SCHMID or expelled from the dishwasher as taught by KIM.

15. Claims 2-4, 6, 10-12, and 14 are rejected over SCHMID in view of KIM because SCHMID teaches or makes obvious the claimed limitations as described above in the 35 USC 102(b) rejections.

**16. Claims 7-8 and 15-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over SCHMID (USPA 2003/0140517) in view of KIM (USPN 5,277,210) further in view of ENOKIZONO (USPN 5,337,500).**

17. SCHMID (or SCHMID in view of KIM) is relied upon as described above in the rejections of Claims 1 and 9.

18. Claims 7-8, 15-16, and 20 are directed to a dryer fan and a condenser fan and a motor which drives both fans, which SCHMID fails to teach explicitly, but teaches a fan driven by a motor.

19. It is obvious to duplicate parts such as a fan because it has been held that mere duplication of the essential working parts of a device involves only routine skill in the art. *St. Regis Paper Co. v. Bemis Co.*, 193 USPQ 8. Furthermore, it is well known in the art to provide a dryer and condenser fan both of which are driven by a single motor, as for example, ENOKIZONO teaches (fans 72 and 86 driven by motor 74, Fig. 1).

20. Thus, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify the dishwasher having a dryer as taught by SCHMID (or SCHMID in view of KIM) and add another fan and a motor, which is a known configuration, suggested to be efficient in circulating vapor and air and improving heat

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exchange efficiencies for a condenser/dryer within a dishwasher as taught by ENOKIZONO.

21. Claims 17-19 are rejected as unpatentable over SCHMID (or SCHMID in view of KIM) further in view of ENOKIZONO under analogous rejections to Claims 2-3 and 6 respectively, with the exception that Claims 17-19 depend on Claim 16 instead of Claim 1.

### ***Conclusion***

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to JASON Y. KO whose telephone number is 571-270-7451. The examiner can normally be reached on Monday-Thursday; 9:30am-7:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, MICHAEL BARR can be reached on 571-272-1414. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/JYK/  
Jason Y. Ko  
Patent Examiner, Art Unit 1792  
13 November 2009

/Michael Barr/  
Supervisory Patent Examiner, Art  
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